determining a satellite constellation having a first coverage, the constellation including at least two desired satellites, wherein each of the desired satellites has [have] a trajectory associated therewith and a relative configuration within the satellite constellation;

determining a period of orbit for each of the desired satellites;

determining a time dependent coverage of a the satellite constellation based on the orbit period and the trajectory of each of the desired satellites;

determine the tilted [tilting the] trajectory of each [at least one] of the desired satellites to reorient the satellite constellation without changing the relative configuration of the desired satellites within the satellite constellation to obtain a second coverage based on the time dependent coverage, the second coverage providing maximum coverage at the predetermined local times for the set of predetermined geographic locations; and

generating command signals for modifying the trajectory of each [the at least one] desired satellite based on the tilted trajectory.

3. (ONCE AMENDED) The method as recited in claim 2 further comprising launching each [the at least one] desired satellite with the orbital parameters programmed therein.

4. (ONCE AMENDED) The method as recited in claim 1 wherein generating the command signals includes transmitting the command signals to each [the at least one] desired satellite.

5. (TWICE AMENDED) The method as recited in claim 1 wherein determining the orbit period includes determining if the trajectory of each [the at least one] desired satellite is equatorial.

9. (ONCE AMENDED) The method as recited in claim 1 wherein the trajectory is defined by a first coordinate system and wherein determining the tilted [tilting the] trajectory comprises:

translating the first coordinate system into rotation matrices:

transforming the rotation matrices based on the tilting; and

determining a second coordinate system based on the transformed rotation matrices.

10. (TWICE AMENDED) A system for maximizing satellite constellation coverage at predetermined local times for a set of predetermined geographical locations, the satellite constellation having a first coverage and including at least two desired satellites wherein each of the desired satellites have a trajectory associated therewith and a relative configuration within the satellite constellation, the system comprising:

a processor operative to determine a period of orbit for each of the desired satellites, determine a time dependent coverage of the satellite constellation based on the orbit period and the trajectory of each of the desired satellites, and to tilt the trajectory of at least one of the desired satellites to reorient the satellite constellation without changing the relative configuration of the desired satellites within the satellite constellation to obtain a second coverage based on the time dependent coverage, the second coverage providing maximum coverage at the predetermined local times for the set of predetermined geographic locations; and

means for generating command signals for modifying the trajectory of each of the [the at least one] desired satellites based on the tilted trajectory.

11. (ONCE AMENDED) The system as recited in claim 10 wherein the means for generating is a computer programmed to launch each [the at least one] desired satellite into space with the modified trajectory.

13. (ONCE AMENDED) The system as recited in claim 10 wherein the means for generating is a satellite ground station operative to transmit and receive signals to and from each [the at least one] desired satellite.

15. (TWICE AMENDED) The system as recited in claim 10 wherein the processor, in determining the orbit period, is further provided for determining if the trajectory of each[the at least one] desired satellite is equatorial.